

Bibliometric analysis of Information seeking behaviour related literature by

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ABSTRACT

The paper deals with a study conducted on literature related to information seeking behaviour from *LISA Plus*. The out come of the normal keyword search in *LISA Plus* are analysed to present the growth of publications; collaboration-ship pattern of authors; most contributed authors; languages in which maximum number of articles are published; type of publications in which information scientists preferred to publish their works; highly preferred journals in which information seeking behaviour related works are published; and the contents of information seeking behaviour related literature through subject descriptors.

KEYWORDS: information seeking behaviour; literature growth; author productivity; author collaboration; publication types; content analysis; published journals; *LISA Plus*

1. INTRODUCTION

Numerous studies have identified factors that affect the transmission and use of information or have proposed strategies for increasing information flow and utilization. User studies are being given due priority to overcome the improper communication and usage of information and information sources. Understanding information seeking behaviour, one of the effective ways of conducting user studies, has become topic of research for many information specialists. Disciplines, Educational realms, Professions, Societal groups, etc. are some of the criteria for restricting observation of information seeking behaviour [e.g. Salasin and Cedar, 1985; Whitmire, 2003, Khalil, 2001 etc.]. Literature review by Murphy [2003] reveals that researchers have given much attention to observe information seeking behaviour in different disciplines. The unaccountable literatures produced towards this area of research have made it an independent sub-domain of library and information studies. Information Seeking Behaviour of teachers is important for University Library policy making (Parmar 2003)

Research in user studies, information seeking behaviour, and information retrieval process has no doubt accumulated large quantitative data and findings. In fact information seeking behaviour and information needs are two separate components of user studies. Scholarly contributions made towards developing various models of information seeking have failed to give desired results of general application. Chandel and Saraf (2002) discussed the comparison of different models of information seeking behaviour.

LISA Plus: Library and Information Science Abstracts (LISA) produced by Bowker-Saur, is an international bibliographic database on Library & Information Science (LIS) and researchers in LIS frequently look for LIS related research articles [Sen, 1997]. *LISA Plus* is a treasure of literature for locating literature on information seeking/gathering behaviour.

2. OBJECTIVES

The scope of the study restricted to the literature pertaining to information seeking behaviour from *LISA Plus*. The analysis of the information seeking behaviour related literature have done on the basis of some of the following objectives:

- To depict the growth of publications;
- To note the collaboration-ship pattern of authors and identify most contributed authors;
- To find out languages in which maximum number of articles are published;
- To explore the type of publications in which information scientists preferred to publish their works;
- To document highly preferred journals in which information seeking behaviour related works are published; and
- To present the contents of information seeking behaviour related literature through subject descriptors.

3. MATERIALS AND METHODS

The usual mechanism of keyword search is adopted for gathering the bibliographic records from *LISA Plus* (since 1969). For the data analysis of bibliographic records some programs written in Visual C++ language and SQL were employed. Normal count procedure is employed for giving weight to each and every variable. Collaboration coefficient is calculated as the ratio of the collaborated publications with total number of publications. Recency is defined as the time for publishing latest 50% of the publications.

4. RESULTS AND DISCUSSION

4.1 GROWTH OF PUBLICATIONS

The total number of information seeking behaviour related publications in *LISA Plus* were 864. The chronological growth of publications is depicted in Figure 1. A steady growth in number of publications has been observed starting from 1967 to 2001. Recent ten years have witnessed a sudden growth in number of publications. Information scientists have produced maximum number of publications in the year 1999.

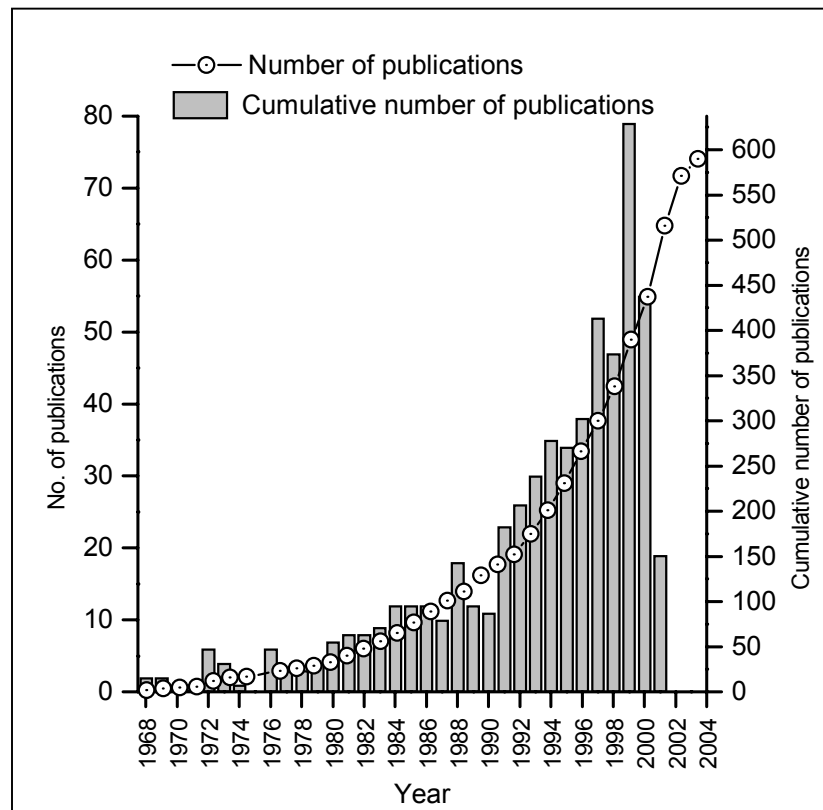


Figure 1: Growth of information seeking behaviour related research publications in *LISA Plus*

4.2 AUTHORSHIP PATTERN AND MOST CONTRIBUTED AUTHORS

The collaboration-ship pattern of the scientists working in the information seeking behaviour field with recency has been presented in Table 1. There are 381 single-authored publications. Two-authored, three-authored and four-authored publications are 125, 57, and 11 respectively. There are only three papers with a collaboration of five authors and there is only one paper with maximum collaboration of six authors. There are 12 records with out the author field. The overall Collaboration coefficient is 0.33. The publication year of the paper with six authors is 2000. The works with five and four authors published during the period 1980-2000. Papers with a collaboration of less than four authors are published in the period 1968-2001. In other words, as the collaboration increases the recency is decreased.

Table 1: Author-ship pattern observed in the information seeking behaviour related research publications of *LISA Plus* (1968-2001)

Authorships	No. of papers	Total authorships	FPY-LPY	Recency*
1 authored	381	378	2001-1968	7
2 authored	125	250	2001-1969	6
3 authored	57	171	2001-1968	4
4 authored	11	44	2000-1988	2
5 authored	3	15	1989-1980	3
6 authored	1	6	2000-2000	1

Recency = Time (in years) for publishing latest 50% of the publications

Table 2 documents the most contributed authors to the literature related to information seeking behaviour in *LISA Plus*. The credit for the most productive author is shared by R. Savolainen (1.67 publications per year) and C. C. Kuhlthau (1.17 publications per year) with 14 publications each, followed by G. Marchionini (12 publications with one publication per year) and P. Vakkari (11 publications with one publication per year). Contribution of eight papers in a year by Dervin B. and four papers each by Hartley R. J. and Tedd L. A. is remarkable.

Table 2: Most productive authors contributed information seeking behaviour related research publications to *LISA Plus* (1968-2001)

Sr. No.	Author's Name	No. of papers	FPY-LPY*	Papers per year
1	Savolainen-R.	15	1993-2001	1.67
2	Kuhlthau-C. C.	14	1988-1999	1.17
3	Marchionini-G.	12	1989-2000	1.00
4	Vakkari-P.	12	1988-1999	1.00
5	Large-A.	9	1998-2000	3.00
6	Dervin-B.	8	1998-1998	8.00
7	Hartley-R. J.	8	1999-2000	4.00
8	Tedd-L. A.	8	1999-2000	4.00
9	Hjorland-B.	7	1993-1998	1.17
10	Spink-A.	6	1992-2001	0.60
11	Ellis-D.	5	1990-2000	0.45
12	Saracevic-Tefko	5	1986-1988	1.67
13-21	9 authors contributed 4 papers	36	-	-
22-40	19 authors contributed 3 papers	57	-	-
41-75	35 authors contributed 2 papers	70	-	-
76-669	594 authors contributed 1 paper	594	-	-

FPY-LPY = First Publication Year-Last Publication Year

4.3 PUBLISHED LANGUAGES

Table 3 presents language-wise break-up of 590 records related to information seeking behaviour in *LISA Plus*. English is the most prominent language in which 512 (86.77 %) of information seeking behaviour related works are published followed by 14 (2.37 %) in Finnish language and 8 (1.36 %) in Chinese language.

4.4 TYPE OF PUBLICATIONS AND MOST PREFERRED JOURNALS

Journals are the most preferred type of channel in which researchers working in studies related to information seeking behaviour publish their works followed by conference/seminar/symposia proceedings and books. The following is the distribution of 590 information seeking behaviour related literature in *LISA Plus*.

Journal articles	= 522 (88.47 %)
Conference/seminar/symposia presented papers	= 39 (6.61 %)
Books	= 29 (4.92 %)

Table 4 presents the rank-wise list of most preferred journal titles by authors who contributed to information seeking behaviour related articles in *LISA Plus*. *Journal of the American Society for Information Science* with 27 articles is the most preferred journal followed by *Information Processing and Management* (17 articles), *Bulletin of the Medical Library Association* (14 articles), *Kirjastotiede ja Informatiika* (13 articles), *Library and Information Science Research* (12 articles), *Information Research* (11 articles), and *Reference Librarian* (10 articles).

Table 3: Published languages of information seeking behaviour related research works in *LISA Plus* (1968-2001)

Language	No. of papers	Percentage
English	512	86.78
Finnish	14	2.37
Chinese	8	1.36
Dutch	7	1.19
German	7	1.19
Hungarian	7	1.19
Japanese	7	1.19
Russian	6	1.02
Danish	4	0.68
Swedish	4	0.68
French	2	0.34
Icelandic	2	0.34
Slovak	2	0.34
Turkish	2	0.34
Czech	1	0.17
Italian	1	0.17
Norwegian	1	0.17
Polish	1	0.17
Portuguese	1	0.17
Spanish	1	0.17

4.5 SUBJECT KEYWORDS

The thought content of a document or research work can be represented by the subject keywords assigned by author or database creators. The field ‘subject descriptors’ in *LISA Plus* is analysed to identify the most occurred keywords along with the keyword ‘information seeking behaviour’. The most occurred subject keywords along with its number of occurrence are documented in Table 5. ‘Searching’ (66), ‘online information

retrieval' (59), and 'information storage and retrieval' (48) are some of the significant keywords occurring along with the keyword 'information seeking behaviour'.

5 CONCLUSION

The last ten years of the study was the period in which more than 70 % of the works related to studies on information seeking behaviour have been carried out. Most of the collaborated studies on information seeking behaviour are carried out only in the recent past. The Collaboration coefficient (0.33) indicates almost 33 percent of total authors working in the field are collaborating each other. As in almost all fields, English is the most prevalent language and journals are the most preferred channels in which information seeking behaviour related literature are published. The information seeking behaviour while 'searching', 'online information retrieval', 'information storage and retrieval' are the much-focused areas.

Table 4: Most preferred journals publishing information seeking behaviour related research works in *LISA Plus* (1968-2001)

Sr. No.	Name of Journal	No. of papers
1	Journal of the American Society for Information Science	27
2	Information Processing and Management	17
3	Bulletin of the Medical Library Association	14
4	Kirjastotiede ja Informatiika	13
5	Library and Information Science Research	12
6	Information Research (online journal)	11
7	Reference Librarian	10
8	Information World Review	8
9	Journal of Documentation	8
10	Information Today	7
11	Journal of Academic Librarianship	7
12	Australian Library Journal	6
13	College and Research Libraries	6
14	Library Quarterly	6
15	RQ	6
16	Svensk Biblioteks Forskning	6
17	Aslib Proceedings	5
18	Electronic Library	5
19	Library and Information Science	5
20	Science and Technology Libraries	5
21	American Libraries	4
22	Australian Library Review	4
23	BibliotheekBlad	4

24	Business Information Review	4
25	Education for Information	4
26	Journal of Information Science	4
27	Konyvtari Figyelo	4
28	Library Journal	4
29	Library Review	4
30	Library Trends	4
31	Managing Information	4
32	Online	4
33	South African Journal of Library and Information Science	4
34-	24 journals with 3 papers each	72
35	45 journals with 2 papers each	90
36	124 journals with one paper	124

Table 5: Highly occurring subject descriptors in the information seeking behaviour related records in *LISA Plus* (1968-2001)

Subject descriptor	Occurrence
Information seeking behaviour	167
Information work	157
Research	82
Libraries	76
Users	75
Searching	66
Online information retrieval	59
User surveys	54
Book review abstracts	53
User needs	51
Information storage and retrieval	48
User services	48
Services	47
University libraries	46
Subject indexing	43
Technical services	43
Computerized information storage and retrieval	37
Library materials	37
Public libraries	37
Internet	33
USA	33
World Wide Web	30
UK	29
Students	28
Computerised information retrieval	26
Surveys	26
User behaviour	21
Library staff	18
Medicine	18
Business information	17
Models	17
Social sciences	17
Information communication	16
Faculty	15
Scientists	14
Companies	13
Databases	13
Information services	13
User training	13
Comparison with	12
Journalists	12

Periodicals	12
Strategies	12
Finland	11
India	11
Library technology	11
Relationship with	11
Academic libraries	10
End users	10
Humanities	10
Management	10
Netherlands	10
Nigeria	10
Research methods	10
	truncated

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